

Data Analysis and Probability  
Lesson 27 Worksheet  
Math for Standards

Name \_\_\_\_\_

Date \_\_\_\_\_

1. Maggie Brann asked 10 of her students how many books they had read in the last 12 months. Their answers were as follows:

18, 24, 12, 7, 11, 8, 12, 21, 20, 13

- a. Prepare a stem-and-leaf plot for this data. (4 pts)
- b. What is the median number of books read? (2 pts)
- c. What is the range (highest to lowest) of the data? (2 pts)
- d. How many people read fewer than 20 books? (2 pts)

2. The weights (to the nearest tenth of a kilogram) of 30 students in England were measured and recorded as follows:

58.3, 62.5, 61.4, 63.1, 60.9, 59.8, 61.5, 59.0, 60.1, 60.7, 61.6, 57.3, 61.9, 65.7, 60.4,  
58.9, 59.0, 61.2, 61.1, 61.4, 58.4, 60.6, 60.2, 62.7, 60.0, 59.3, 61.4, 61.7, 58.4, 62.2

- a. Create a stem-and-leaf plot for this data. (4 pts)
- b. What is the median weight? Mean weight? Mode? (6 pts)
- c. How many more kilograms than the median is the heaviest student? (3 pts)
- d. How many students are at least 61.5 kg? (1 pt)

3. The following set of numbers are the amount of Transformers™ fifteen different boys own.

33 18 12 7 28 30 8 29 37 28 32 14 15 11 4

a. Find the median, lower quartile, and upper quartile of the data. (3 pts)

b. Create a box-and-whisker plot of the data. (6 pts)

c. What percent of the values are below the median? How do you know? (3 pts)

d. What percent of the values are above the upper quartile? How do you know? (3 pts)

**Open-Ended Question: Answer of a separate piece of paper. Make sure as you answer the open-ended question that you show your work AND explain how you know you are doing the correct work. YOU MUST EXPLAIN WHAT YOU ARE DOING!!!**

The data below represents the number of steps in the main staircases of 13 museums.

73 90 55 98 88 110 98 97 60 73 80 105 73

A. Find the median, quartiles, and maximum and minimum values.

B. What values represent the middle 50% of the data?